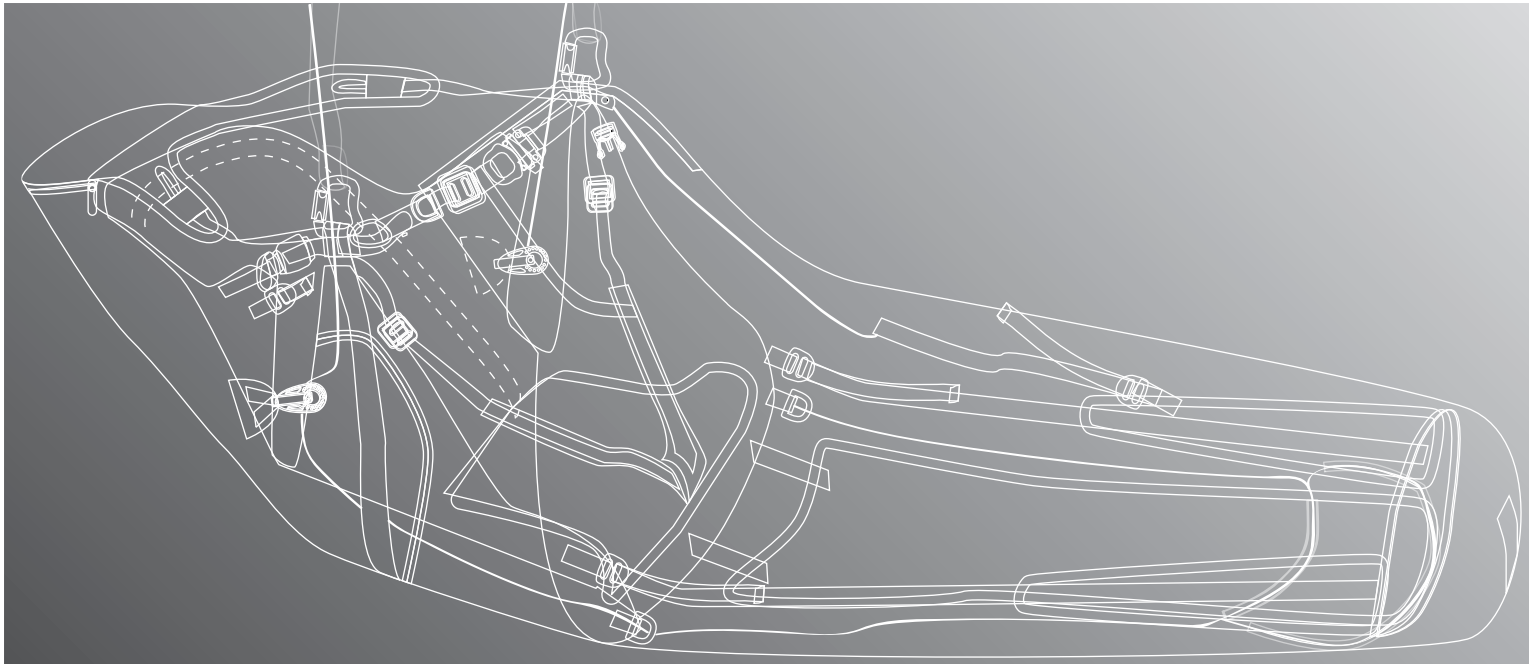

Delight

User's manual

SUPAIR-VLD
PARC ALTAÏS
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74650 ANNECY CHAVANOD
FRANCE

45°54.024'N / 06°04.725' E

Revision Indice: 20120314 EN

Thank you for your choice of a Sup Air DELIGHT. We are proud to join you on your journey in our common passion : paragliding.

SUP'AIR has been designing, producing and selling accessories for free flying activities since 1984. By choosing a SUP'AIR product you benefit from almost thirty years of expertise, innovation and listening. This is also our philosophy : working endlessly to develop better products and to maintain a high quality production in Europe.

We trust that you will find this user's manual comprehensive, explicit and hopefully pleasant to read. We advise you to read it carefully !

On our website www.supair.com, you will find the last up to date information about this product. If you have any further questions, feel free to ask one of our retailers. And of course, the entire SUP'AIR team are at your disposal through info@supair.com

We wish you many safe flying and enjoyable hours, and happy landings.

The SUP'AIR team

List of contents

List of contents	3
Introduction	4
Technical sheet	5
Technical specifications	5
Size choice	6
Nomenclature	7
Harness overview	8
Storage and attachments	9
Rescue parachute pocket characteristics	10
Connecting the handle to the rescue parachute's deployment bag	10
Rescue parachute assembly	10
Placing the parachute in the rescue parachute pocket	11
Connecting the rescue parachute risers to the harness : Y risers	12
Connecting the rescue parachute risers to the harness : standard risers	13
Cockpit and BUMPAIR assembly	14
Speedbar assembly	15
Position setting	16
Speedbag angle setting	17
Leaning angle setting	17
Shoulders' straps adjustment	17
Flight behaviour	18
Pre-Flight control	19
Take-off	20
In flight	21
Speedbar use	21
Landing	22
Throwing the reserve parachute	22
Complements/Accessories	23
Wash and care of your harness	24
Storage and transport	24
Lifetime	24
Care	24
Repair	25
Materials	25
Recycling	25
Warranty	26
Disclaimer	26
Pilot's gear	26
Warranty	26
Service Book	27

All the pictures of this user's manual were shot by Thomas De Dorlodot and Horacio LLorens during their 2011 expedition in Pakistan where they set many new records such as Himalayan distance record (225 km).
More information on :
www.xp.supair.com

Welcome to the world of lightweight performance! You have in your hands the key that opens the door to exceptional flights. The DELIGHT is our most persuasive invitation to adventure and with it you will be able to go higher, further and fly longer. Now, you just have to find a playground big enough !

After reading this manual, we suggest you check your harness by hanging in it before flying.

N.B : Three important icons will help you when reading this manual

Advice

Caution !

Danger !

Technical specifications

Technical sheet

A Back height

B Leaning setting height

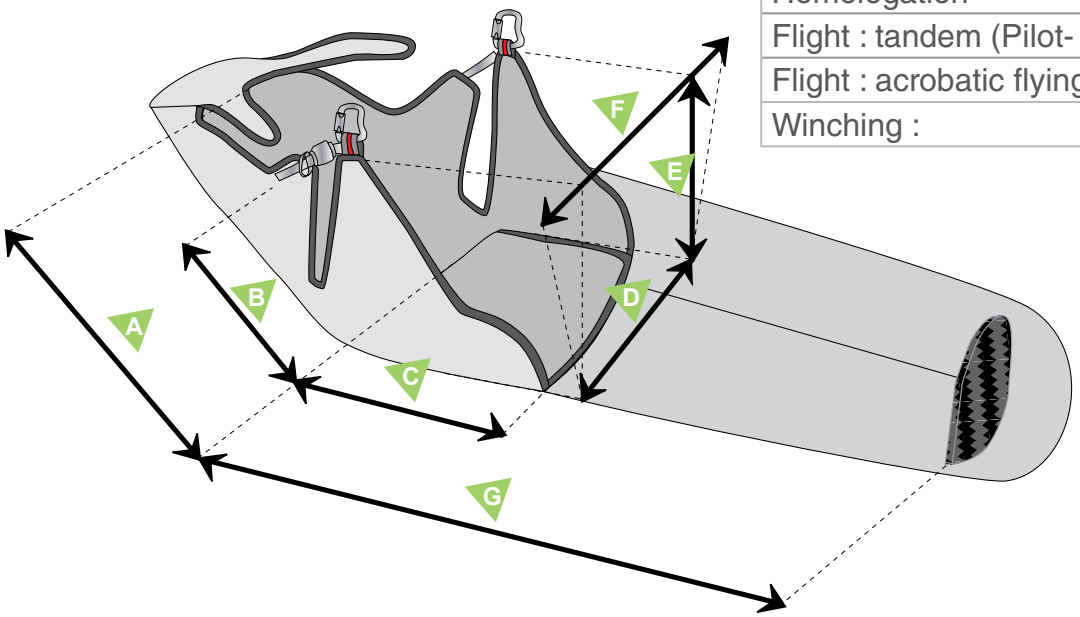
C Seat length

D Seat width

E Carabiners height

F Carabiners distance

G Speedbag length



Model	DELIGHT M	DELIGHT L
Pilot size	1 m 55 -1 m 90	1 m 70 -2 m 05
Weight	60 - 80 kg	75 - 100 kg
Harness weight (+ carabiners+speedbar)	2,3 kg (+ 140g+ 25g)	2,55 kg (+140 g + 25 g)
Designed for (cm)	Paragliding only	
Back height (cm)	57	61
Leaning setting height (cm)	29	32
Seat length (cm)	50	50
Seat width (cm)	33-37	33-37
Carabiners height (cm)	44	44
Carabiners distance (cm)	28-45	28-45
Speedbag length (cm)	100-120	105-125
Impact damping system : Airbag (Volume)	No	
Impact damping system : Bump'air (Thickness)	Yes - 14 cm	
Homologation	EN 1651 - LTF	
Flight : tandem (Pilot- Passenger)	No-No	
Flight : acrobatic flying	No	
Winching :	No	

Choosing your harness' size is important. You will find here below a height/weight table that will help you in your size choice. With its hammock architecture and its "lying flat" flying position, we advise you to try out the harness under a hanging device at one of our retailers in order to choose the correct size.

For a complete list of our retailers, please click here : www.supair.com

Size Weight	1m55	1m60	1m65	1m70	1m75	1m80	1m85	1m90	1m95	2m	2m05
60				M	M	M	M	M			
65				M	M	M	M	M			
70				M	M	M	M	M			
75				M	M	M	M	M/L	M/L	L	
80				M/L	M/L	M/L	M/L	M/L	M/L	L	
85				M/L	M/L	M/L	M/L	L	L	L	
90						L	L	L	L	L	
95						L	L	L	L		
100						L	L	L	L		
105											

M

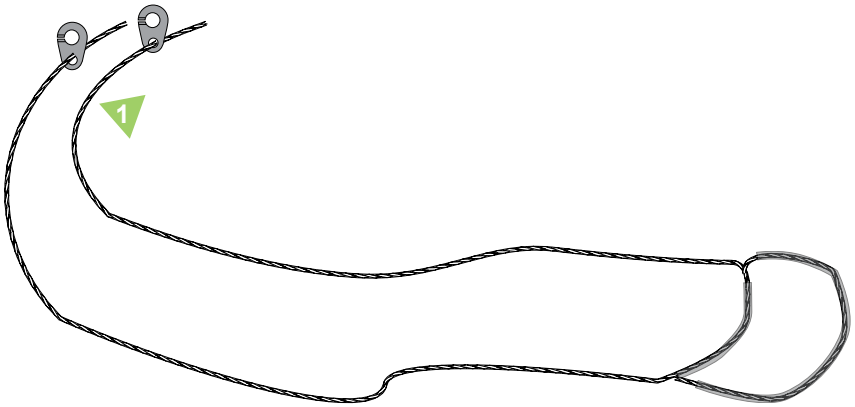
M/L

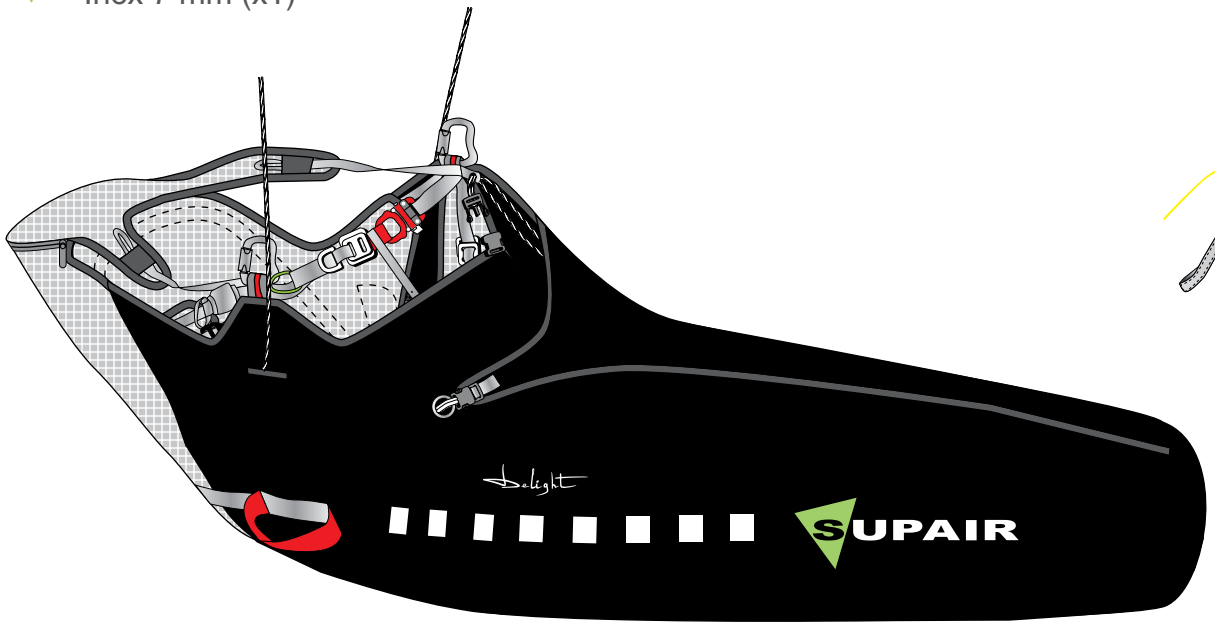
L

Preliminary test under hanging device

Nomenclature

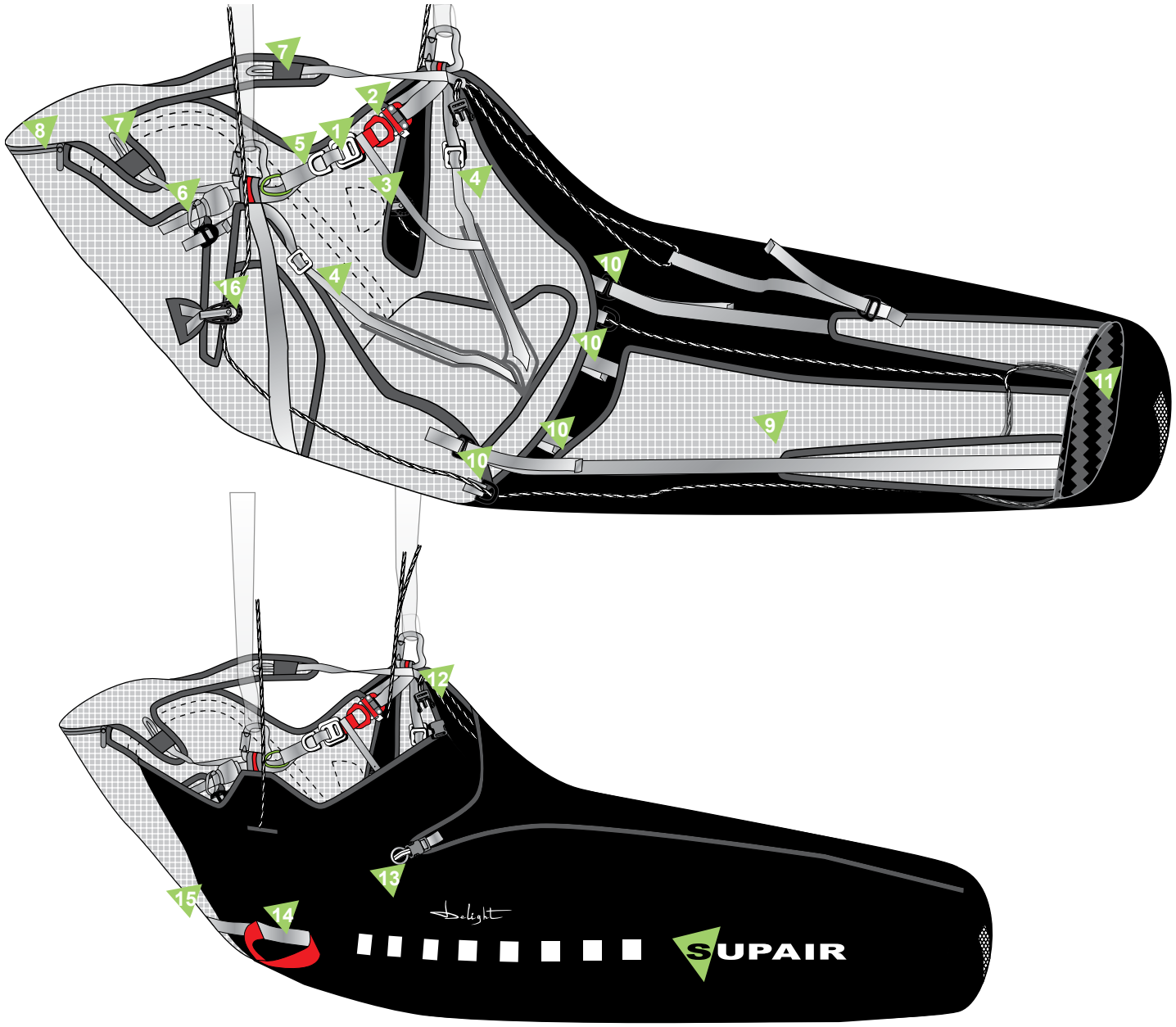
1. Speedbar
2. Rescue parachute handle
3. Rescue parachute risers
4. O rings (x2)
5. Maillon Rapide ® Inox 7 mm (x1)
6. Zicral 30 mm carabiners (x2)
7. Bumpair 14 cm
8. Footrest Unique size
9. Cockpit





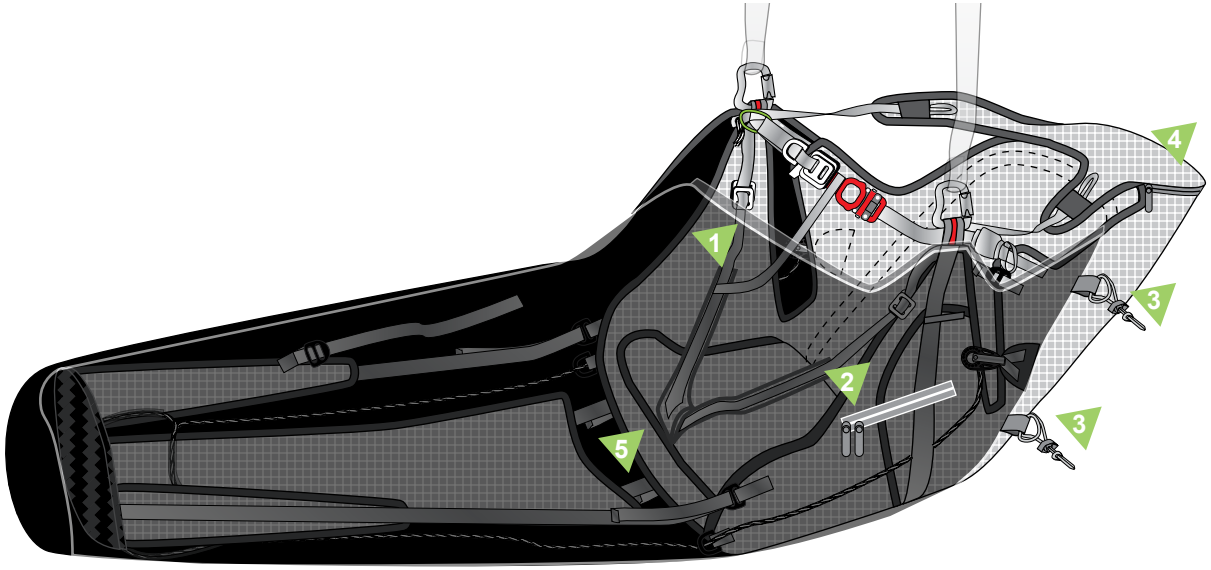
Harness overview

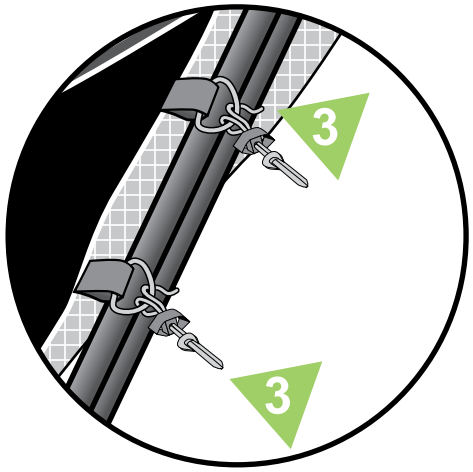
This illustration will help you during your reading.



1. Right ventral buckle
2. Left automatic ventral buckle
3. Safe-T-bar (Sup'Air patent A1-1832/981)
4. Thigh strap buckle
5. Ventral width adjustment
6. Leaning setting
7. Shoulders'straps adjustment
8. Back pocket
9. Feet glide part
10. Speedbag leaning adjustment
11. Footrest
12. 13. Speedbag closing buckles
14. Rescue parachute handle
15. Rescue parachute pocket
16. Harken® Pulley

Storage and attachments





1. Cockpit
2. Lateral storage pocket
3. Walking poles holder handgrip top
4. Back pocket
5. Under seating pocket for ballast (3 litres)

Rescue parachute assembly

Rescue parachute pocket characteristics

- 4 flaps back pocket.
- Cable locking.
- Handle on the right-hand side.
- Volume : 3 to 6,5 litres.
- Compatible with the SUPAIR lite and XTRALITE and other solo parachutes.

Connecting the handle to the rescue parachute's deployment bag

Thanks for reading carefully ! We recommend the initial rescue parachute assembly and installation is made by a qualified person.

A DELIGHT rescue parachute handle

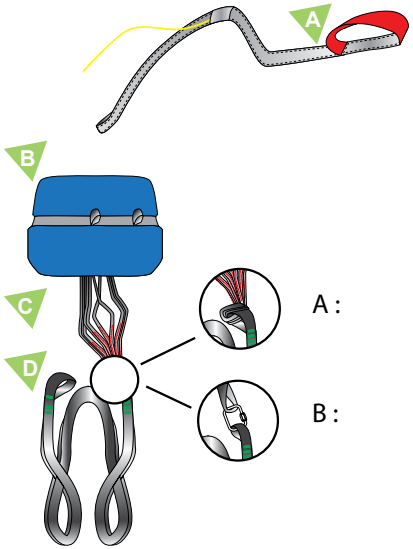
B Parachute folded according to manufacturers specification and in deployment bag.

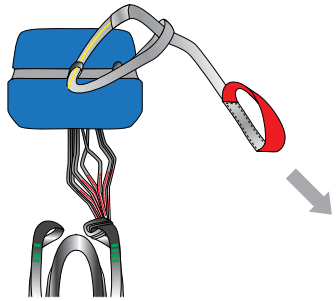
C Parachute rigging lines

D Parachute risers (Y-risers or standard risers)

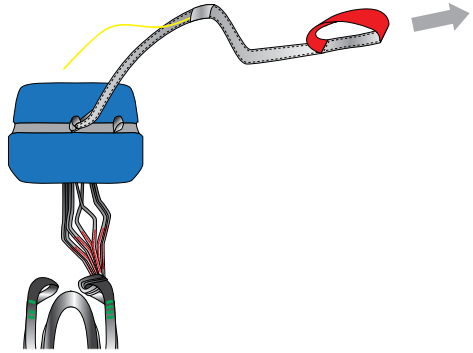
Y-Risers : make a lark's head and connect the risers to the harness using Maillon Rapide ® Inox 6 or 7 mm (x2)
see page 12

Standard Risers : use one Maillon Rapide ® Inox 7 mm.
See page 13





1. Place the handle inside the middle webbing loop and make a lark's head knot with the handle.

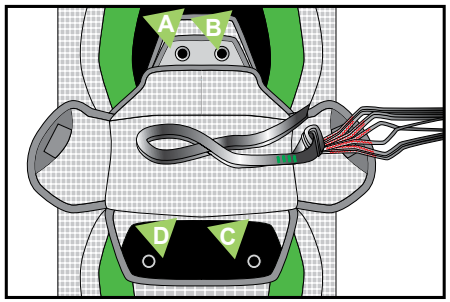


2. Fasten tightly the lark's head knot and verify the solidity of the link.

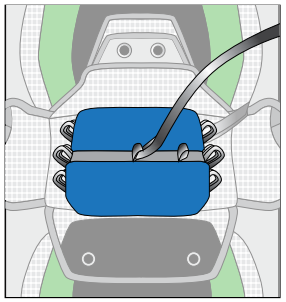
Thanks for reading carefully ! We recommend the initial rescue parachute assembly and installation is made by a qualified person.

A B Upper flap grommets

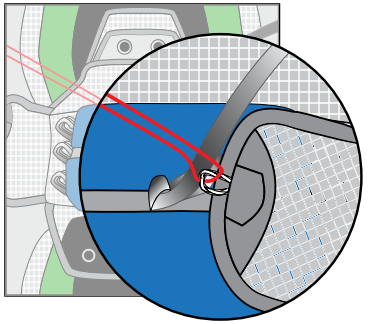
C D Under flap grommets



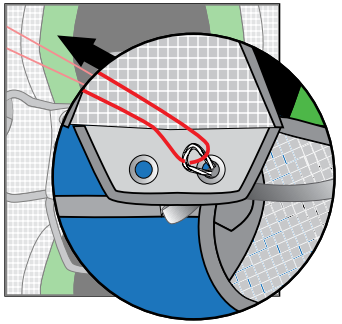
1. Place the risers' straps and the rigging lines of the parachute clearly coiled



2. Place the parachute in its pod on top of the risers and lines.

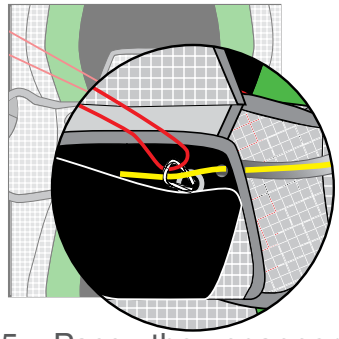


3. Take a suitable line and pass it inside the snapper on handle's side.

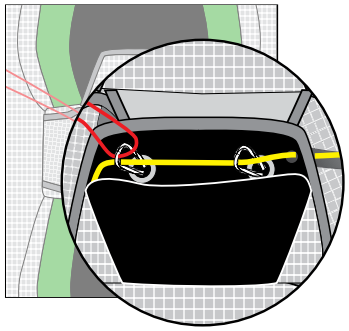


4. Pull the snapper and pass it through the B grommet.

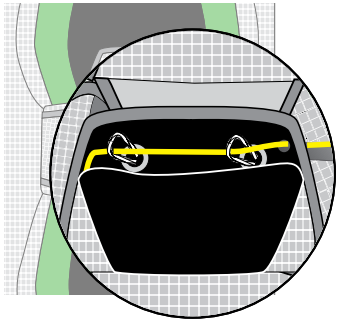
When the assembly is complete, perform a test pull of the handle to ensure the compatibility and the correct deployment of the rescue (pod + handle). Then reassemble as previously done.



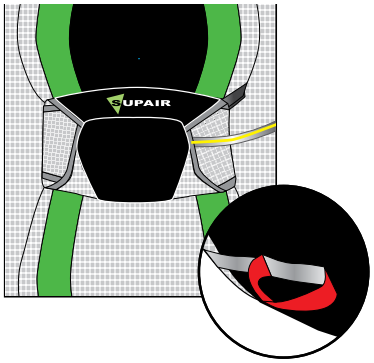
5. Pass the snapper through the C grommet and pass the handle's cable inside the hole of the down flap and finally inside the snapper. Pull away gently the line



6. Place the line through the other snapper in the A and D grommets (up and down flaps). Repeat step #5.



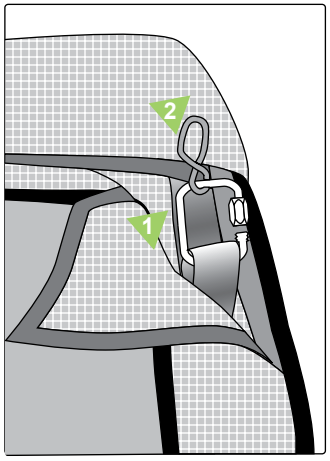
7. Put the cable trim inside the flap pocket



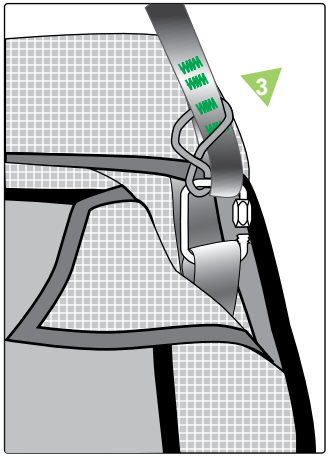
8. Turn down the last flap and place the handle on its velcro.

Connecting the rescue parachute risers to the harness : Y risers

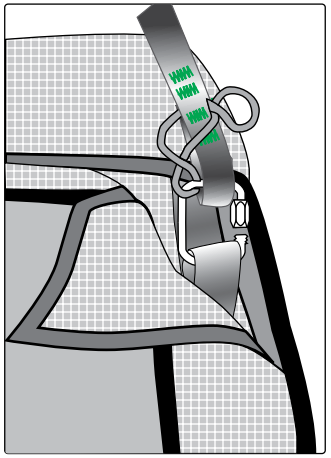
1. Place the Maillon Rapide® (locking nut upwards and on exterior side) inside the webbing loop. Place the O-ring inside the Maillon and twist it.



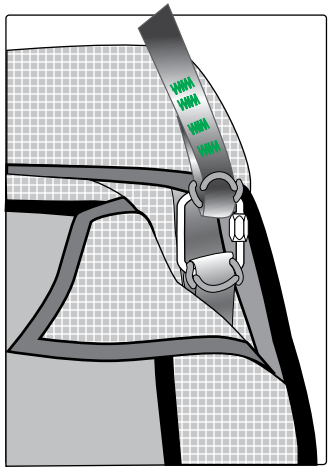
2. Pass the riser inside the free loop and inside the Maillon Rapide®.



3. Make a new twisted loop with the ring and pass it inside the Maillon Rapide®.



4. Repeat steps #1, #2 and #3 with another O-ring for the connexion to harness. Tighten the Maillon Rapide® locking nut correctly, with a spanner if needed.

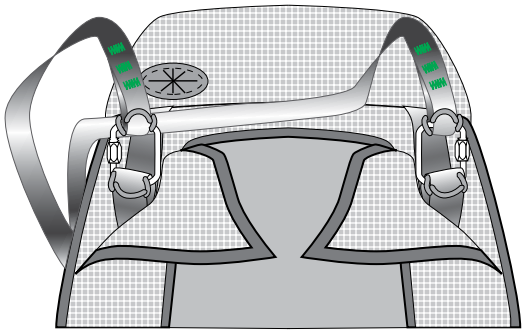


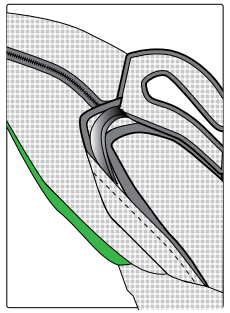
1 Maillon Rapide ® Inox 6 mmn (x2)

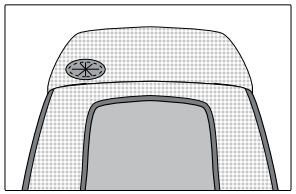
2 O-Rings (x2)

3 Parachute risers

5. Neatly stow any surplus risers under the flaps.





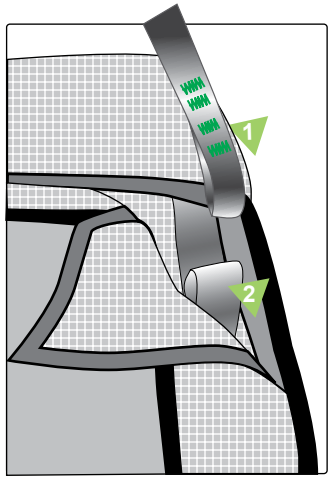


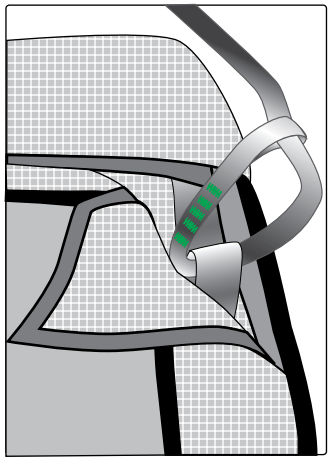
Connecting the rescue parachute risers to the harness : standard risers

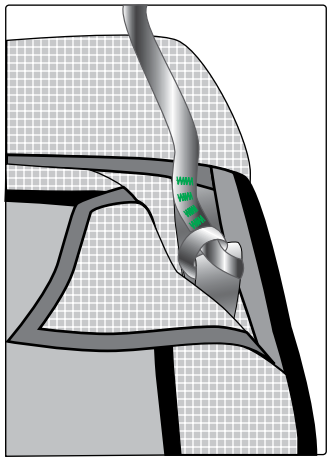
Your DELIGHT is fitted with light standard parachute risers

1. Make a lark's head between the risers and the webbing loop for rescue attachment.

2. Fasten the lark's head neatly



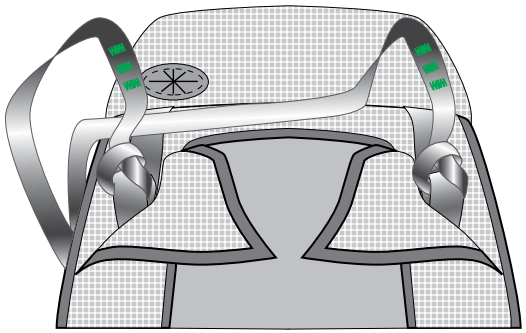


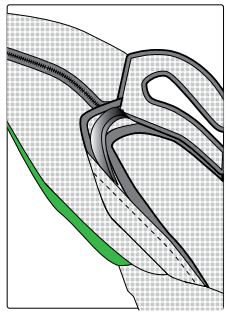


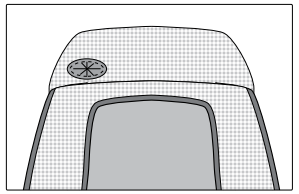
3. Neatly stow any surplus risers under the flaps.

1 Rescue parachute standard risers

2 Webbing loop for rescue risers attachment





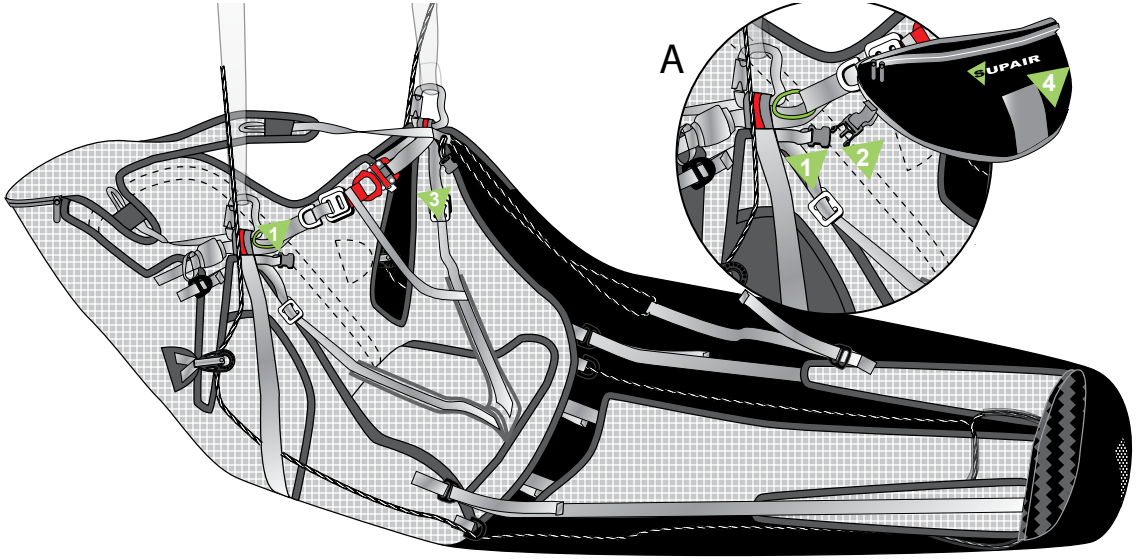


Cockpit and BUMPAIR assembly

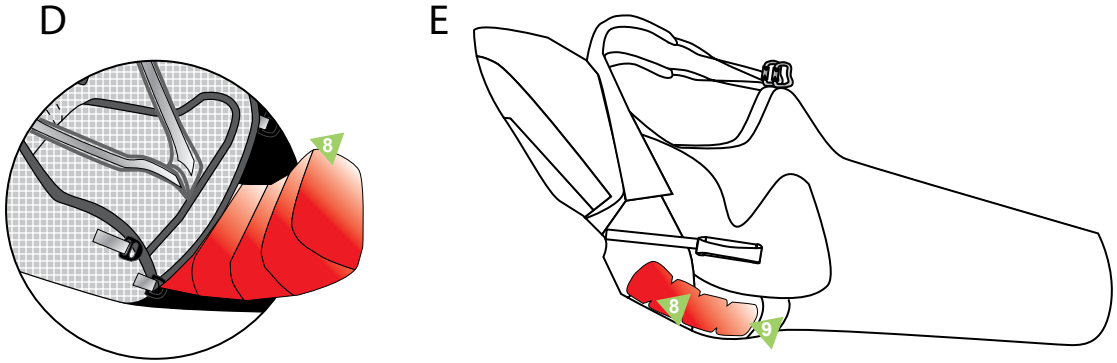
A- Connect the female buckle (1) to the male buckle (2).

B- Connect the cockpit's velcro patches (4) to the speedbag's velcro patches (5).

C - Pass the male buckle on speedbag (7) through the the strap loop with snap fasteners (6) and connect it to the female buckle (3) of the harness.



1. Female buckle Harness
2. Male buckle Cockpit
3. Female buckle on braided rope Harness
4. Velcro fastening- Cockpit
5. Velcro fastening on speedbag Harness
6. Strap with snap fasteners Cockpit
7. Male buckle on speedbag- Harness
8. Bumpair 14 cm
9. Internal cell with velcro for bumpair



D- Unzip the pocket and unfasten the internal cell with velcro (9). Push the BUMPAIR (8) inside the pocket under the seat.

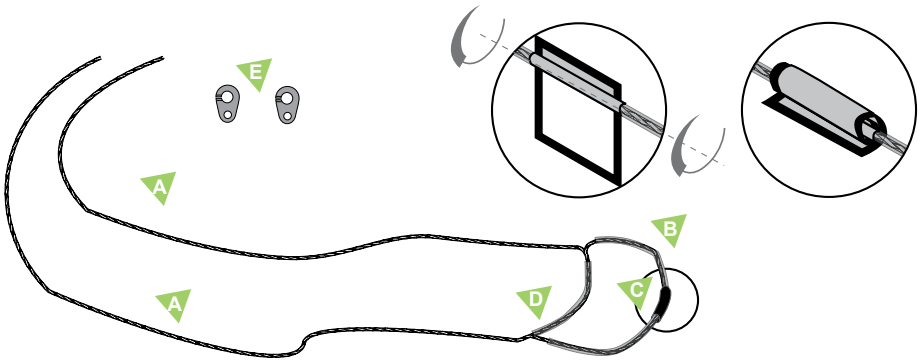
E- Fasten the internal cell with velcro (9) and zip the pocket.

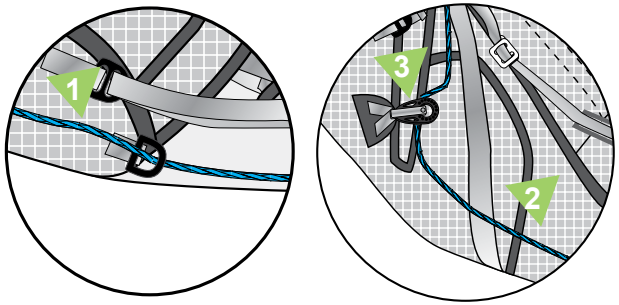
Speedbar assembly

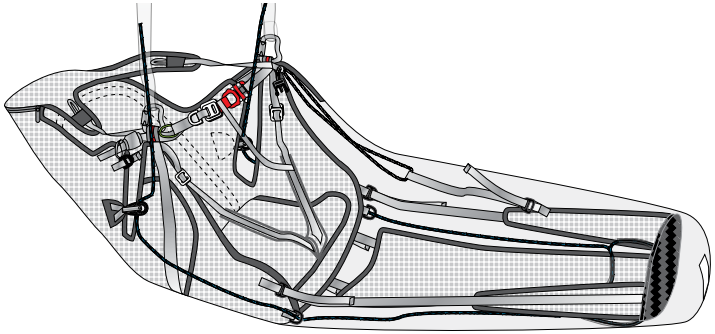
A light speedbar is provided with harness. The following illustration shows how to install it.

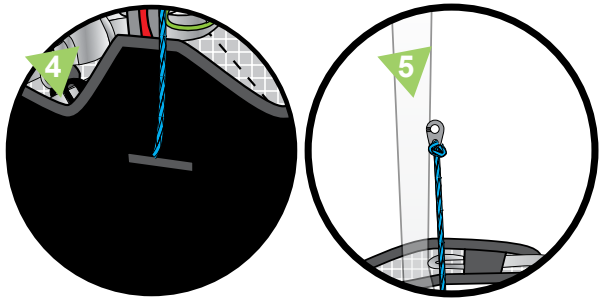
Composition

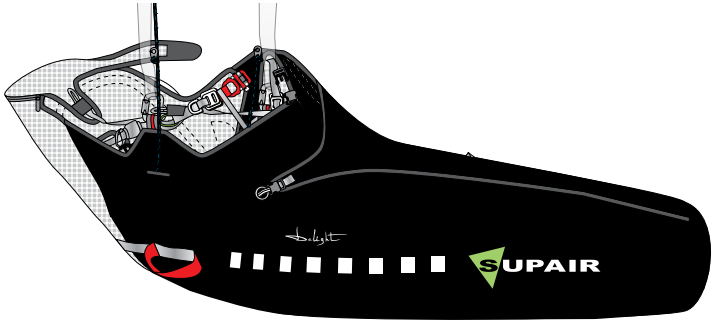
- A Braided ropes
- B First bar
- C Centering spacer
- D Second bar
- E Speedbar hook







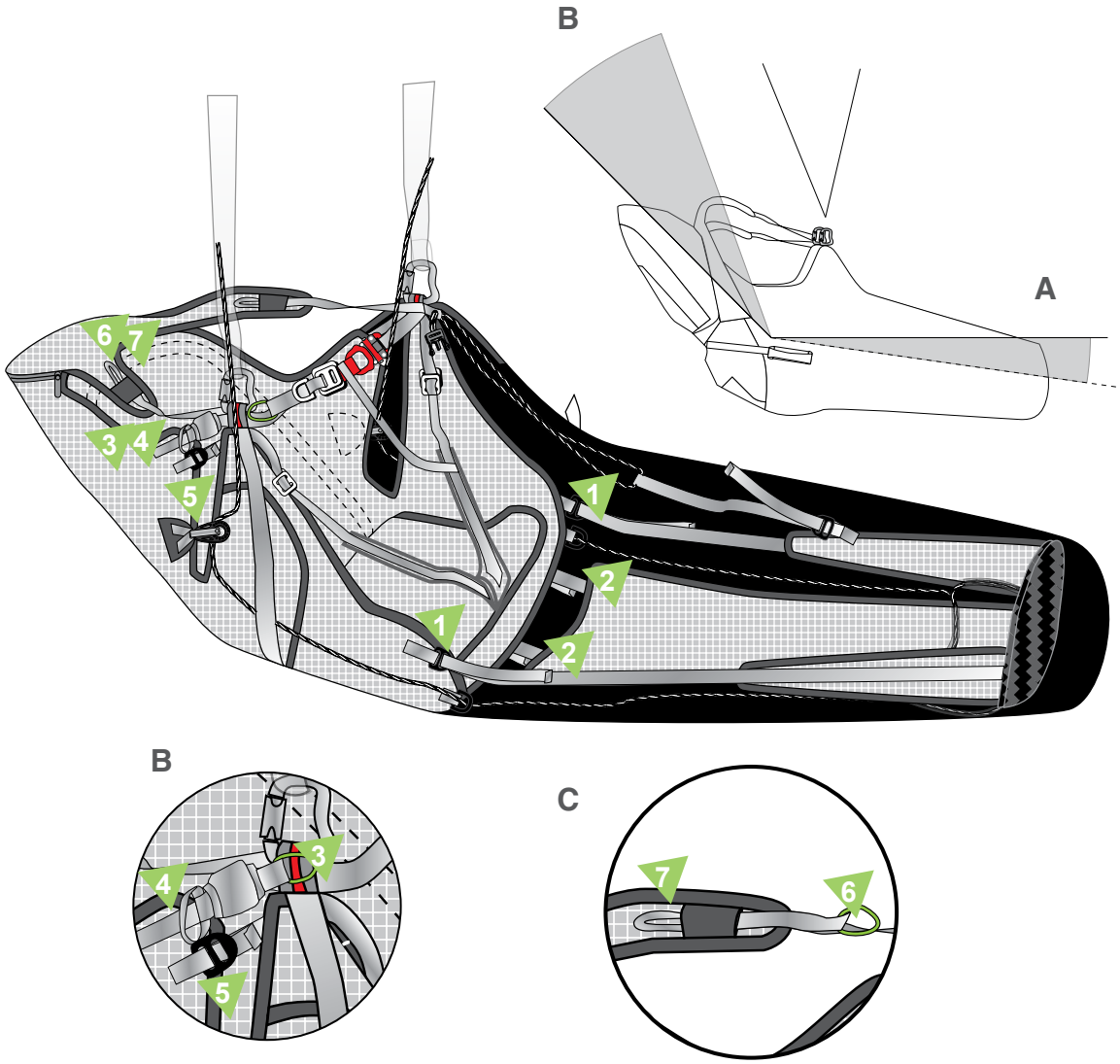




1. Pass the speedbar braided rope inside the plastic keeper.
2. Pass the speedbar braided rope outside the strap.
3. Pass the speedbar braided rope inside the pulley.
4. Pull out the braided rope outside the speedbag.
5. Pass the braided rope inside the speed bar hook then tighten the hooks to the risers' accelerator loops. Adjust the length before making a bowline knot.

Setting your position inside the harness before taking-off is extremely important.

1. Lateral buckles
2. Under seating buckle
3. Tightening snapper (leaning setting)
4. Loosening strap (leaning setting)
5. Lumbar adjustment buckle
6. Tightening snapper (shoulder strap)
7. Loosening strap (shoulder strap)



A Speedbag angle setting

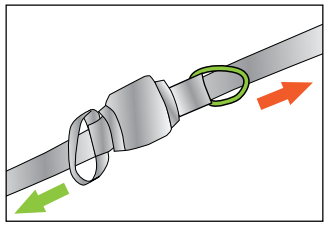
With the help of the two lateral and under seating buckles, set the angle of the speedbag around horizontal position.

B Leaning angle setting

Set the angle of leaning by tightening the snapper (towards a more vertical position) or the black webbing (towards a more horizontal position).

You can extend the lumbar support by tightening the #5 buckle.

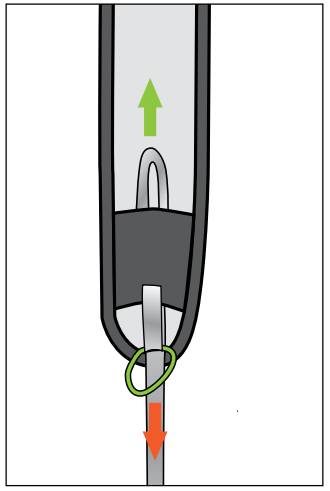
B



tighten

loosen

C



loosen

tighten

C Shoulders' straps adjustment

Tighten the shoulders' straps by using the snapper and pulling it forward.

Loosen it with help of the tubular webbing by pulling it backward.

The support of the shoulders' straps greatly helps comfort. It should be set precisely.

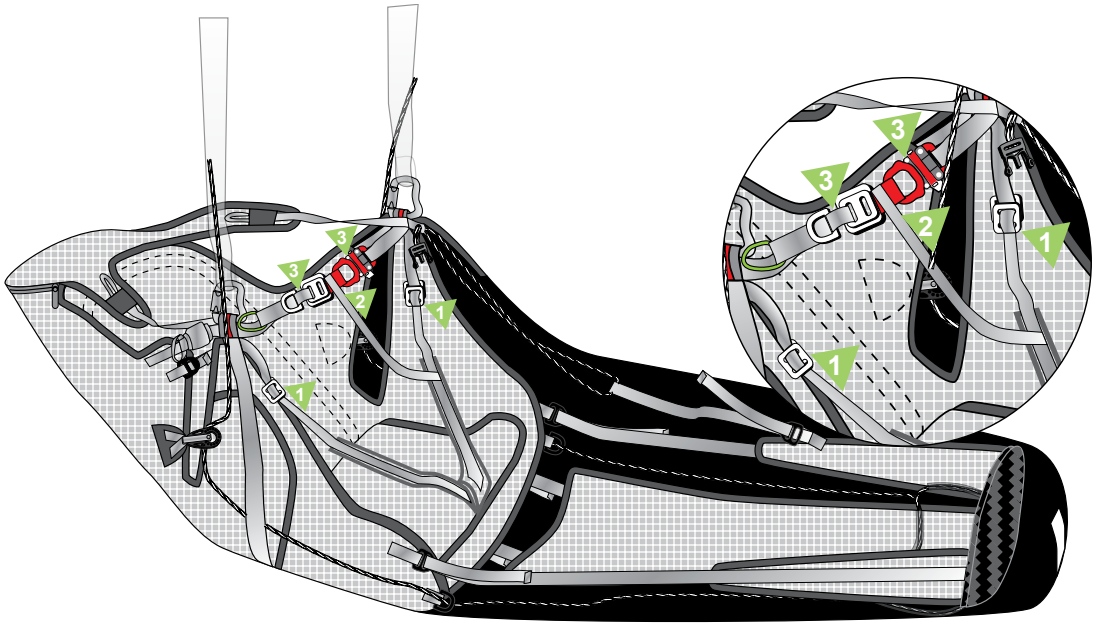
The DELIGHT has equipped several X-ALPS 2011 pilots. It is consequently a high performance harness designed for XC flights, for competitions as well for bivy-flying adventures. But it is also aimed at “hike and fly” or high-mountain flying.

Pre-Flight control

- ***Check that the harness and the carabiners did not deteriorate.***
- Check thoroughly that the rescue handle's cable end has not got outside the snappers' flaps
- Check that your personal settings haven't changed.
- Check that all zippers and buckles are closed.
- Check that the speedbar is correctly connected and set.
- Check that no rigging line or other object comes in contact with rescue parachute handle.

After a thorough weather conditions analysis, when the decision to fly has been taken, fit into the harness :

- Fasten the buckles (thigh straps, safe-T-bar and ventral buckles) with application.
- Check that the carabiners are correctly locked.



1 Thigh strap buckles

2 Safe-T-Bar® Sup'air patent A-1832/981

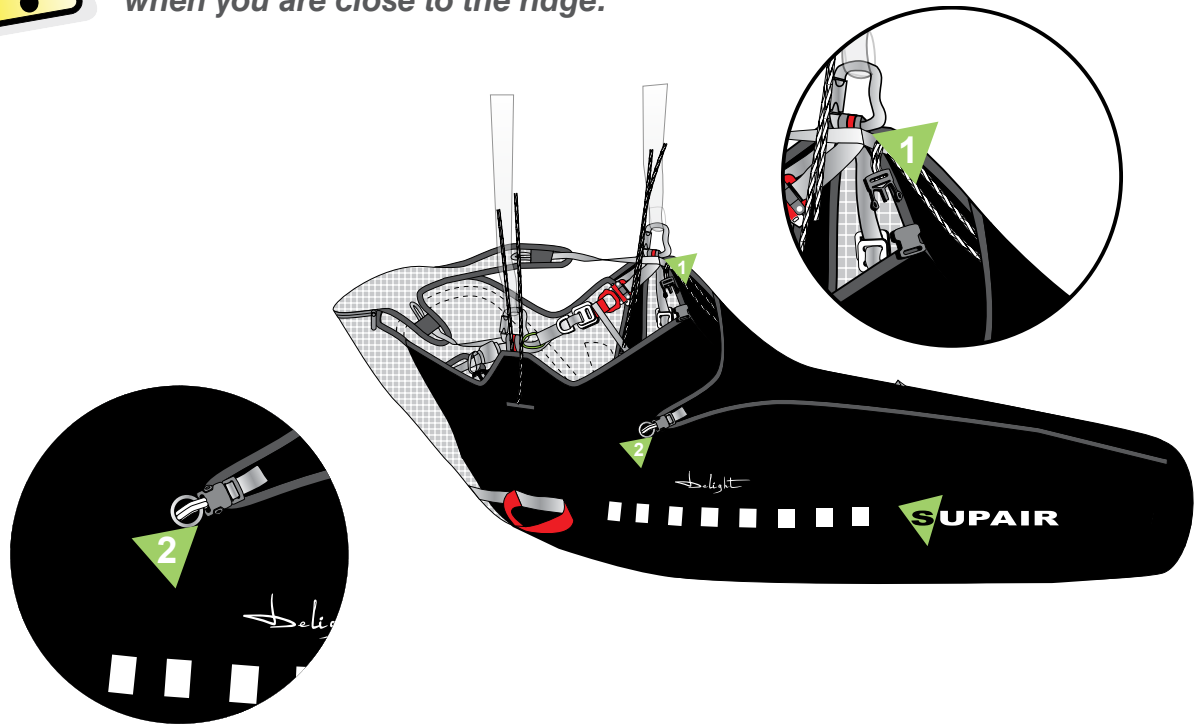
3 Ventral buckles

Take-off

After being correctly fitted into your harness, fasten the left buckle (1, on braided rope) of the speedbag then fasten the second speedbag buckle (2).

During take-off, maintain a standing position and as soon as you are far enough from the ground, fetch the speedbag with one of your heels. With help of the foot-rest, push back into your harness.

Do not release your hands from the brakes when you are close to the ridge.



In flight

As soon as you are airborne, the behaviour is very instinctive and precise.

Please set the distance between the two carabiners according to aerology and to wing's manufacturer recommendations.

Tightening provides more stability but less harness piloting efficiency. Be careful as it increases the risk of risers twisting. On the contrary, loosening the strap provides more efficiency but can be dangerous by turbulent aerology (increased risk of falling towards the collapsed side of your glider).

Speedbar use

We recommend a careful use of the speedbar because of an increased risk of massive collapse. Please read carefully the manual of your glider.

To use the speedbar, maintain one foot on the footrest then with the other, place your foot onto the centering space and push the first bar.

This spacer helps you to obtain a symmetrical acceleration.

Once your foot touches the footrest, use the other foot to push the second bar.

Landing

In order to land, during the approach, take your legs out of the speedbag in plenty of time. Stand up inside the harness and adopt an upright position in order to run to dissipate horizontal speed.

Do not land whilst in the seated position, this is dangerous.

Throwing the reserve parachute

We strongly advise you to check frequently the location of the reserve parachute's handle. To do this, we recommend that you lower your right hand following the risers. This movement should be done without looking. By doing this, you increase your chances in case something goes wrong and you need to throw the reserve parachute.

Evaluate your height from the ground. If you have a lot of altitude, it may be better to attempt to recover your wing to normal flight, But if you are in any doubt, deploy your rescue parachute.

Deploying a rescue parachute should be done only in an emergency.

With a strong, lateral and then vertical tug, pull the handle towards you and then throw the whole parachute (including the bag and handle) as hard as you can towards a clear area of sky. As soon as the parachute deploys, haul down the glider by pulling as symmetrically as you can the risers (C or d D) or on the brakes.

Be prepared to land by adopting an upright position, with knees together and legs slightly bent. Prepare to roll down with pivoting shoulders.

We propose you optional accessories that combine perfectly to your DELIGHT harness.

Function	Code	Description	Weight
Portage	SACDELIGHT	DELIGHT rucksack. Dyneema® fabric, 90 lts capacity, lateral storage pockets.	750 g
Connection to the glider	MAILCONNECT	Connect Soft Dyneema® sleeved carabiners	12 g (part)
Rescue parachute	PARXTRALITE S PARXTRALITE M PARXTRALITE L	Parachute SUPAIR X-tralite S (PTV Max 80 kg) Parachute SUPAIR X-tralite M (PTV Max 95 kg) Parachute SUPAIR X-tralite L (PTV Max 115 kg)	< 1 kg < 1,2 kg < 1,4 kg
Ballast	BALLAST	Water pocket with tap. Max volume: 15 lts	185 g

All the information for the accessories are provided with the product or are easy to access on our website www.supair.com

Wash and care of your harness

It is a good idea to wash your harness from time to time. To do this, we recommend to use a soft solvent (such as soap), use a brush and rinse thoroughly. In any case, do not use chemicals such as detergents or strong solvent because it may deteriorate the webbing, stitching and fabrics of your harness.

The zip fasteners should be lubricated from time to time, using a silicon spray.

If your harness gets wet, it is advisable to treat your automatic buckles and carabiners with silicone grease from time to time.

Storage and transport

When you don't use your harness, store it inside your paragliding rucksack, in a dry, cool and clean place, protected from UVs exposure. If your harness is wet, please dry it thoroughly before storing.

For transport, protect the harness from any mechanical or UV deterioration (use a bag). Please avoid long transports in wet conditions.

Lifetime

Independently of the pre-flight check-out, you have to open and unfold your rescue parachute once every 6 months.

Once every 2 years, you need to perform a complete check of your harness :
fabrics

- webbings (no excessive wear, no rip beginning, no unwanted folds)
- buckles and carabiners

The threads that compose the webbing and fabrics used in the DELIGHT have been selected in order to ensure the best possible lightness/lifetime compromise. Nonetheless, in some conditions, after a long term exposure to UV and/or significant abrasion or exposure to chemicals, **it is compulsory to check your harness in a certified repair centre. It is about your safety.**

These carabiners must never be used for anything else else than paragliding (not for climbing, no towing, etc ...)

The carabiners must be replaced by new ones every 5 years.

Repair

Though we use the highest quality materials, it is possible that your harness may eventually deteriorate through general use. If its is showing any signs of significant wear and tear, you should check it and repair it in an certified repair centre.

SUP'AIR offer a repair facility for their products beyond the end of the warranty period. Please contact us either by telephone or by E-mail sav@supair.com in order to receive a quotation.

Materials

Fabrics
- DYNEEMA® RIPSTOP
- CORDURA®
- CORDURA® RIPSTOP

Speedbag
- LYCRA MEMBRANE

Webbings
- Polyamide 20 mm (500 DaN)
- Polyester 25 mm (1250 DaN)

Connection straps (Rescue risers to Maillon Rapide®)
- Dyneema® (1350 N)

Recycling

If you judge your DELIGHT has finished its life, you can separate all the plastic and metallic parts and apply up-to-date sorting rules in effect in your community. For recycling of the fabric parts, we advise you to contact your local authority that deals with fabric recycling.

Warranty

SUP'AIR takes the greatest care in the design and production of its products. SUP'AIR guarantees its products 5 years (from purchase date) against any defect or design fault occurring during normal use. Any damage or degradation resulting from incorrect or abusive use, abnormal exposure to aggressive factors, including, but not limited to; high temperature, intense sun exposure, high humidity etc will invalidate this warranty.

Disclaimer

Paragliding is an activity that requires, skill, specific knowledge and sound judgement. Be careful, learn in certified schools, subscribe an adequate insurance policy as well as a flying license and make sure your skill match the conditions. SUP'AIR cannot be held responsible for your paragliding decisions or activities.

This SUP'AIR product has been designed exclusively for paragliding. Any other activity such as skydiving or BASE jumping is absolutely forbidden.

Pilot's gear

This is essential that you carry a helmet, suitable boots and clothing. Taking a reserve parachute suitable for your weight and correctly connected to your harness is also very important.

This page will help you to record all the life stages of your harness.

Serial number :

Purchase date	
Owner's name :	
Name and stamp of the shop :	

☐ Care ☐ Resale	
Date	
Workshop's name/ Buyer's name	

☐ Care ☐ Resale	
Date	
Workshop's name/ Buyer's name	

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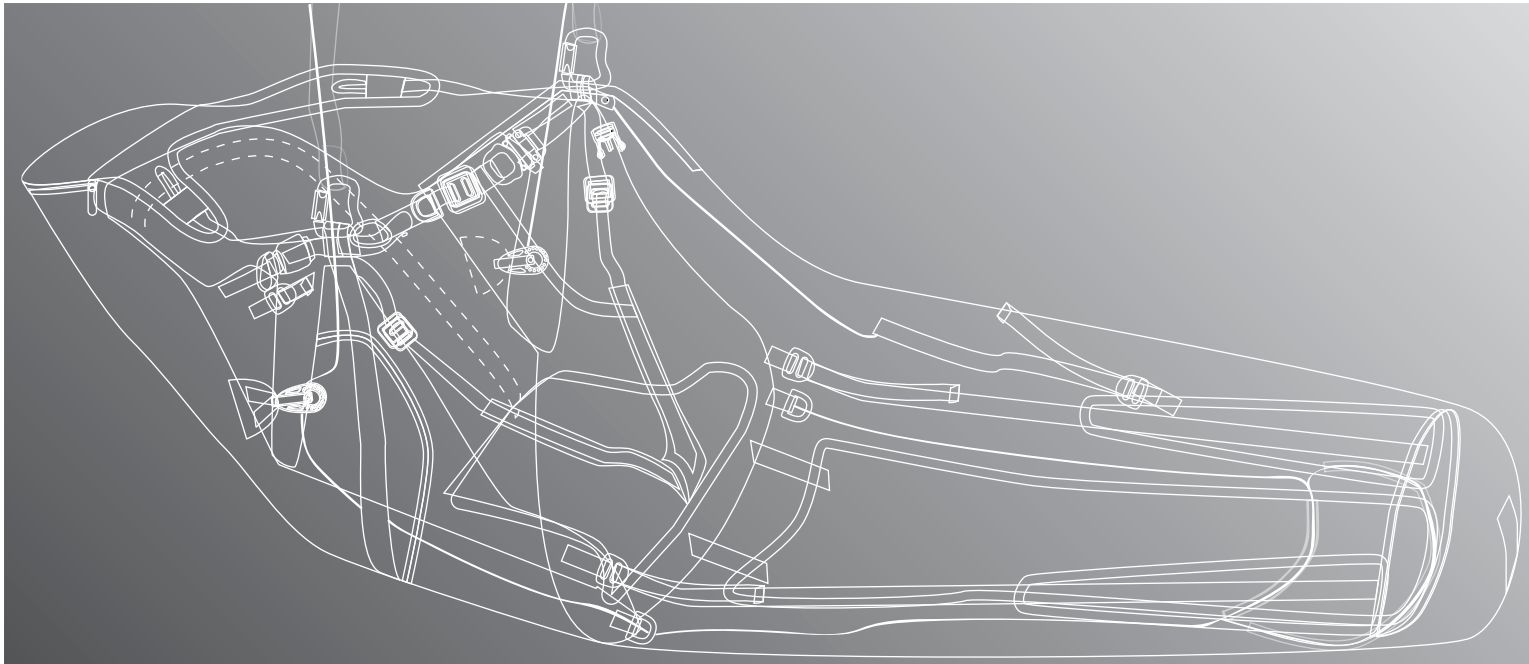

Delight

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